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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Cristina Gomila

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EXAMINER

PE, GEEPY

ART UNIT

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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,929	Applicant(s) GOMILA, CRISTINA	
	Examiner Geepy Pe	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/11/05, 3/31/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claim 10 is objected to because of the following informalities: It is believed that “Mode 47” is a typo and is thought to be “Mode 4” as in claim 20. For the remainder of the application, it will be treated as such.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Chien et al. (U.S. Pat. 5,621,467; hereinafter Chien; already of record).

Re. **claim 1**, Chien teaches a method for concealing errors in a coded image formed of an array of macroblocks (Chien: Title; Abstract), comprising the steps of: identifying macroblocks

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within the array having missing/corrupted pixel values (Chien: col. 2, lines 54-55, 65-67; col. 4, lines 35-40); deriving at least one intra-prediction mode for each identified macroblock to define a concealment direction, the at least one intra-prediction mode derived in accordance with the coded image (Chien: col. 4, lines 35-51); establishing an interpolation filter for the identified intra-prediction mode for estimating concealment values for each identified macroblock along the concealment direction (Chien: col. 4, lines 35-51); and concealing the identified macroblock in accordance with the estimated concealment values (Chien: col. 4, lines 35-51).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims **2-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chien, in view of Richardson (Richardson, "H.264/MPEG-4 Part 10: Intra Prediction").

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Re. **claim 2**, Chien does not explicitly teach that the image is coded in accordance with the H.264 coding technique and wherein the step of deriving the at least one intra-prediction mode further comprises the step of deriving an Intra_4x4 prediction mode prescribed by the H.264 coding technique. However, in the same field of endeavor, Richardson teaches different modes of intra-prediction and choosing one according to the H.264 standard (Richardson: pg. 1 of 1, section 2) for the benefit of minimizing the residual between a sample and the block to be encoded (Richardson: pg. 1 of 1, section 2, last sentence). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the image is coded in accordance with the H.264 coding technique and wherein the step of deriving the at least one intra-prediction mode further comprises the step of deriving an Intra_4x4 prediction mode prescribed by the H.264 coding technique in the Chien invention, as shown in Richardson, for the benefit of minimizing the residual between a sample and the block to be encoded. The Chien invention, now incorporating the Richardson invention, has all the limitations of claim 2.

Re. **claim 3**, Chien, now incorporating Richardson, teaches that the step of establishing the interpolation filter further comprises selecting the interpolation filter prescribed by the H.264 coding technique for the derived Intra_4x4 prediction mode (Chien: Fig. 3; Richardson: pg. 1 of 1, section 2).

Re. **claim 4**, Chien, now incorporating Richardson, teaches that the step of establishing the interpolation filter further comprises the step of deriving a interpolation filter mirroring the interpolation filter prescribed by the H.264 coding technique for the derived Intra_4x4 prediction mode (Chien: Fig. 5 & Richardson: pg. 1 of 1, section 2; Fig. 2-2).

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Re. **claim 5**, Chien, now incorporating Richardson, teaches that the derived Intra_4x4 prediction mode comprises Mode 0 (vertical) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 0 (Richardson: pg. 1 of 1, section 2; Fig. 2-2).

Re. **claim 6**, Chien, now incorporating Richardson, teaches that the derived Intra_4x4 prediction mode comprises Mode 1 (horizontal) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 1 (Richardson: pg. 1 of 1, section 2; Fig. 2-2).

Re. **claim 7**, Chien, now incorporating Richardson, teaches that the derived Intra_4x4 prediction mode comprises Mode 2 (DC) and wherein the step of establishing the interpolation filter further comprises the step independently weighting a sum of pixel values from a neighboring column and a neighboring row in a vertical direction and a horizontal direction, respectively (Richardson: pg. 1 of 1, section 2; Fig. 2-2).

Re. **claim 8**, Chien, now incorporating Richardson, teaches that the derived Intra_4x4 prediction mode comprises Mode 3 (Diagonal down left) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 3 (Richardson: pg. 1 of 1, section 2; Fig. 2-2).

Re. **claim 9**, Chien, now incorporating Richardson, teaches that the derived Intra_4x4 prediction mode comprises Mode 7 (vertical left) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 7 (Richardson: pg. 1 of 1, section 2; Fig. 2-2).

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Re. **claim 10**, Chien, now incorporating Richardson, teaches that the derived Intra_4x4 prediction mode comprises Mode 4 (diagonal down right) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 4 (Richardson: pg. 1 of 1, section 2; Fig. 2-2).

Re. **claim 11**, Chien, now incorporating Richardson, teaches that the derived Intra_4x4 prediction mode comprises Mode 5 (Vertical right) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 5 (Richardson: pg. 1 of 1, section 2; Fig. 2-2).

Re. **claim 12**, Chien, now incorporating Richardson, teaches that the derived Intra_4x4 prediction mode comprises Mode 6 (horizontal down) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 6 (Richardson: pg. 1 of 1, section 2; Fig. 2-2).

Re. **claim 13**, Chien, now incorporating Richardson, teaches that the derived Intra_4x4 prediction mode comprises Mode 8 (horizontal up) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 8 (Richardson: pg. 1 of 1, section 2; Fig. 2-2).

Re. **claim 14**, the claim(s) recites analogous limitations to claim(s) 1 and 2 above, and is/are therefore rejected on the same premise.

Re. **claim 15**, the claim(s) recites analogous limitations to claim(s) 3 above, and is/are therefore rejected on the same premise.

Re. **claim 16**, the claim(s) recites analogous limitations to claim(s) 4 above, and is/are therefore rejected on the same premise.

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Re. **claim 17**, the claim(s) recites analogous limitations to claim(s) 6 above, and is/are therefore rejected on the same premise.

Re. **claim 18**, the claim(s) recites analogous limitations to claim(s) 8 above, and is/are therefore rejected on the same premise.

Re. **claim 19**, the claim(s) recites analogous limitations to claim(s) 9 above, and is/are therefore rejected on the same premise.

Re. **claim 20**, the claim(s) recites analogous limitations to claim(s) 10 above, and is/are therefore rejected on the same premise.

Re. **claim 21**, the claim(s) recites analogous limitations to claim(s) 11 above, and is/are therefore rejected on the same premise.

Re. **claim 22**, the claim(s) recites analogous limitations to claim(s) 12 above, and is/are therefore rejected on the same premise.

Re. **claim 23**, the claim(s) recites analogous limitations to claim(s) 13 above, and is/are therefore rejected on the same premise.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geepy Pe whose telephone number is (571)-270-3703. The examiner can normally be reached on Monday - Friday, 7:00AM - 3:30PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. P./

/Geepy Pe/

Examiner, Art Unit 2621

/Andy S. Rao/

Primary Examiner, Art Unit 2621

March 4, 2010